

**AMENDMENTS TO THE CLAIMS**

1. (Currently amended) A method of diagnosing a fault between a subscriber having a subscriber terminal and a network element adapted to receive messages of a first format, the method comprising:

providing a diagnostic unit with a diagnostic website;

receiving, through the diagnostic website with the diagnostic unit, a communication from a subscriber experiencing a problem communicating with [[a]]the network element, the communication having a second format inconsistent with the first format;

determining with said diagnostic unit fault information of said subscriber terminal from a format of said communication generated by the subscriber terminal; and

communicating, with said diagnostic unit, with ~~a selected~~the network element in a format consistent with the first format.

2. (Currently amended) The method of claim 1 wherein receiving a communication from a subscriber comprises utilizing a Fault Tolerant Protocol stack to allow communication between said subscriber and said diagnostic unit for diagnosis purposes when the subscriber terminal is unable to communicate with the network element.

3. (Previously Presented) The method of claim 2 wherein said Fault Tolerant Protocol stack permits communication with said subscriber when said subscriber terminal is misconfigured for communication over the network to the selected network element.

4. (Previously Presented) The method of claim 1 wherein the network comprises the internet and an access network managed by an internet service provider, and the diagnostic unit is installed within the access network and the network element is connected to the diagnostic unit through the internet.

5. (Previously Presented) The method of claim 1 additionally comprising forwarding the fault information electronically to a support operator.
6. (Previously Presented) The method of claim 2 wherein receiving a communication from a subscriber further comprises providing communication with said network through said at least one Fault Tolerant Protocol stack in said diagnostic unit.
7. (Previously Presented) The method of claim 1 additionally comprising obtaining an identification of said subscriber.
8. (Previously Presented) The method of claim 7 wherein obtaining an identification of said subscriber includes determining a username of said subscriber.
9. (Previously Presented) The method of claim 8 wherein obtaining an identification of said subscriber includes obtaining at least one of authentication information associated with said username, a phone number of said subscriber and a time stamp.
10. (Previously Presented) The method of claim 1 wherein determining fault information includes the step of emulating with said diagnostic unit at least one of login services to said subscriber and authentication services to said subscriber.
11. (Previously Presented) The method of claim 1 wherein determining fault information includes analyzing with said diagnostic unit the format of data sent by said subscriber.
12. (Previously Presented) The method of claim 1 wherein determining fault information includes the step of negotiating a protocol between said subscriber and said diagnostic unit, said protocol selected from the group consisting of modem training, network control protocols, authentication protocols, compression protocols and upper layer protocols.

13. (Previously Presented) The method of claim 1 wherein determining fault information includes authenticating a password supplied by said subscriber for an Internet Service Provider (ISP) Net.

14. (Previously Presented) The method of claim 1 wherein determining fault information further comprises:

    sending an e-mail to a diagnostic unit from said subscriber; and  
    receiving an e-mail from said diagnostic unit by said subscriber.

15. (Previously Presented) The method of claim 7 further comprising identifying said subscriber by said identification information within a trouble ticketing system of said service provider.

16. (Previously Presented) The method of claim 15 further comprising prioritizing said subscriber by said identification information within said trouble ticketing system of said service provider.

17. (Previously Presented) A method of providing network access for a subscriber comprising the steps of:

    providing a diagnostic unit in communication with a network;  
    receiving, with said diagnostic unit, a communication from a subscriber unable to communicate with a desired network element;  
    allowing communications between said subscriber and said diagnostic unit by accepting data from said subscriber in a source protocol inconsistent with a network element protocol of a selected network element; and  
    establishing a communication link with the subscriber and sending an indication of the data received from the subscriber to the selected network element in a protocol consistent with the network element protocol.

18. (Previously Presented) The method of claim 17 wherein allowing communications comprises utilizing at least one fault tolerant protocol stack.
19. (Previously Presented) A diagnostic unit comprising:
  - a processor in communication with a subscriber and with a network; and
  - storage associated with said processor, said storage storing instructions for:
    - causing said processor to receive data from said subscriber;
    - determining configuration information of said subscriber;
    - accepting data from said subscriber in a source protocol inconsistent with a network element protocol of a selected network element;
    - establishing a communication link with the subscriber; and
    - sending an indication of the data received from the subscriber to the selected network element in a protocol consistent with the network element protocol.
20. (Original) The diagnostic unit of claim 19 wherein said instructions further include instructions for causing said processor to forward said configuration information to a selected network element.
21. Cancelled
22. (Previously Presented) The method of claim 1 wherein determining fault information includes emulating with said diagnostic unit e-mail services to said subscriber.
23. (Previously Presented) The method of claim 1 wherein determining fault information includes emulating with said diagnostic unit the Internet to said subscriber.
24. (Previously Presented) The method of claim 1 wherein the subscriber terminal comprises a DSL modem.

25. (Previously Presented) The method of claim 24 wherein the subscriber terminal further comprises a personal computer.